

MALACOPTERYGII.

FAMILY. SILURIDÆ.

1. PIMELODUS GRACILIS. Val.

Pimelodus gracilis, Val. in D'Orb. Voy. dans l'Amer. Mérid. Atl. Ichth. Pl. 2. fig. 5.
Cuv. et Val. Hist. des Poiss. tom. xv. p. 134.

FORM.—Of a slender elongated form, the body compressed behind the dorsal. Greatest depth contained about seven and a half times in the entire length: thickness at the commencement of the dorsal a little less than the depth. Head, measured to the gill-opening, rather more than one-sixth of the entire length: its breadth two-thirds of its own length. Helmet smooth, and not very conspicuous, though with its whole surface finely wrinkled: its breadth behind the eyes rather more than one-third of its length, measuring this last from the end of the snout to the further extremity of the interparietal process. The solution of continuity extends back nearly to the base of the process just mentioned, which last is narrow and lanceolate, three times as long as broad at its base, but not reaching to the buckler, or triangular plate in front of the dorsal, by one-third of its own length. The buckler itself is not very large, but sufficiently obvious.

Profile sloping gradually downwards in nearly a straight line from the beginning of the dorsal to the end of the snout: this last depressed and rounded horizontally in the form of a semicircle. Mouth wide, but very little cleft, the commissure not reaching half way to the eye. Upper jaw projecting a very little beyond the lower. In each a band of very fine velutine teeth; but none on the vomer or palatines. Tongue smooth, and fastened down all round. Six barbules; the maxillary pair very long, reaching to the commencement of the anal fin; of the submandibular pairs, the exterior reach one-third beyond the insertion of the pectorals; the interior are only half the length of the exterior. Eyes round, of moderate size, their diameter four and a half times in the length of the head, situate in about the middle of the length: distance from one to the other one diameter and a quarter. Lateral line nearly straight throughout its course, dividing the body longitudinally into two nearly equal portions.

Pectorals not quite equalling the length of the head, and a little less than one-sixth of the entire length: the spine very little shorter than the soft rays, very strong, with sharp teeth on its inner edge, but the outer edge only granulated, or with a few slight serratures towards the extremity. The humeral bone seen above the pectoral projects backwards in the form of a spinous lamina, but does not appear through the skin; it equals half the length of the pectoral itself. The dorsal commences at one-fourth of the entire length, and is of a somewhat rectangular form, the soft rays not decreasing much backwards: its length equals four-fifths of the depth of the body, and two-thirds of its own height. The spine is not so strong as that of the pectoral, and with only a few small serratures on the outer edge near the tip. The space between the dorsal and the adipose a little exceeds the length of the former. The adipose

itself is twice the length of that fin; very low at first, but gradually rising, until, before its termination, it becomes equal to between one-half and one-third of the depth. The vent is in the middle of the entire length, caudal excluded. Anal short, and just beneath the middle of the adipose, there being about one-fourth of this last fin in advance of it as well as behind it: the first four rays simple, but apparently all articulated, the first two or three very minute and not easily observed. Caudal forked for two-thirds of its length: the upper lobe a little longer than the lower, and contained five and a half times in the entire length. Ventrals immediately beneath the last ray of the dorsal; a little shorter than the pectorals, and not reaching to the anal by half their own length.

D. 1/6; A. 14 or 15; C. 17, &c.; P. 1/9; V. 6.

Length 5 inches 2 lines.

COLOUR—(In spirits.) Brownish, inclining to silvery in some places: a dusky fascia formed of dots along the lateral line. Dorsal rather dusky at the base, and with the upper portion also dusky between the rays: a dusky spot on the anterior part of the adipose.

Habitat, Rio de Janeiro.

This species was taken by Mr. Darwin in a running brook at Rio de Janeiro. It approaches on the whole so nearly the *P. gracilis* of D'Orbigny, that I can hardly suppose it to be distinct. Yet there are some slight differences observable in this specimen. It has more anal rays; the adipose appears shorter; and the upper lobe of the caudal is not so prolonged, though possibly it may be worn down. Also D'Orbigny's figure appears to want the dusky stains on the dorsal and adipose fins. If it be not that species it must be new, as there is none other described by Cuvier and Valenciennes with which it will assimilate better.

2. PIMELODUS EXSUDANS. Jen.

P. corpore parum elongato, altitudine quintam partem longitudinis æquante: galeâ lævi, inconspicuâ, processu interparietali haud clypeum parvum prædorsalem attingente: poris paucis buccalibus amplis, serie obliquâ dispositis: maxillis æqualibus: cirris sex; maxillaribus haud analem attingentibus: lineâ laterali primum deflexâ, deinde rectâ: pinnis dorsali et anali brevibus; adiposâ dorsali haud duplo longiore: caudali profundè bifurcâ, lobis æqualibus: spinâ pectorali margine interno fortiter dentato.

D. 1/7; A. 13 vel 14; C. 17, &c.; P. 1/8; V. 6.

LONG. UNC. 3. LIN. 6.

FORM.—In some respects resembling the last species, but the body much less elongated, the depth and thickness remaining the same. The depth is about one-fifth of the entire length; the head rather more than one-fifth. The helmet is scarcely so much wrinkled, and the interparietal process not so long, reaching only half-way to the buckler, which last is smaller and less obvious. The solution of continuity of the bones of the cranium appears to extend back